

IN THE CLAIMS:

Claims 1- 4 (Canceled).

Claim 5 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of disposing optical fibers on fixing jigs at regular intervals;

a second step of dipping the fixing jigs including the optical fibers disposed on surfaces thereof in a vessel containing an epoxy resin to embed the optical fibers in the epoxy resin;

a third step of separating the fixing jigs from the optical fibers embedded in the epoxy resin, wherein the fixing jigs is removed from the epoxy resin;

a fourth step of curing the epoxy resin including the optical fibers embedded therein to produce a semicured prepreg;

a fifth step of forming copper clads on both sides of the semicured prepreg while aligning the copper clads with the semicured prepreg; and

a sixth step of pressing the semicured prepreg and copper clads aligned with each other at predetermined temperature and pressure.

Claim 6 (Original): The method as set forth in claim 5, wherein the fixing jigs including the optical fibers disposed at regular intervals on surfaces thereof are subjected to a rolling process to embed the optical fibers in the epoxy resin in the second step.

Claim 7 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of mounting fixing jigs, including optical fibers disposed at regular intervals thereon, on a copper clad;

a second step of conducting a rolling process for the fixing jigs, including optical fibers disposed at regular intervals thereon and mounted on the copper clad, to coat the optical fibers with an epoxy resin;

a third step of separating the fixing jigs from the optical fibers, wherein the fixing jigs is removed from the epoxy resin; and

a fourth step of semidrying the epoxy resin coated on the optical fibers to form a semicured prepreg on the copper clad.

Claim 8 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of forming a waveguide layer, including waveguides for a large area therein, to transmit an optical signal therethrough;

a second step of dipping the waveguide layer into an epoxy resin to form a semicured prepreg having a structure that the waveguide layer is embedded in the epoxy resin;

a third step of coating attachment members on upper and lower sides of the semicured prepreg;

a fourth step of placing copper clads on the upper and lower sides of the ~~semicured prepreg~~ attachment members while aligning the copper clads with the ~~semicured prepreg~~ with the attachment members interposed between the semicured prepreg and the copper clads; and

a fifth step of pressing the semicured prepreg and copper clads aligned with each other at predetermined temperature and pressure.

Claim 9 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of forming a waveguide layer, including waveguides for a large area therein, to transmit an optical signal therethrough;

a second step of conducting a first rolling process for a first side of the waveguide layer to coat the first side of the waveguide layer with an epoxy resin;

a third step of coating an attachment member on the first side of the waveguide layer coated with the epoxy resin in such a way that the attachment member is positioned on the epoxy resin;

a fourth step of placing a copper clad on the ~~first side of the waveguide layer~~ attachment member while aligning the copper clad ~~with the waveguide layer~~ with the attachment member interposed between the epoxy resin and the copper clad;

a fifth step of pressing the waveguide layer and copper clad aligned with each other at predetermined temperature and pressure; and

a sixth step of conducting a second rolling process for a second side of the waveguide layer, on which the copper clad is not formed, to coat the second side of the waveguide layer with the epoxy resin.